

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figures 1 and 5. Attached hereto are two replacement sheets and two annotated sheets showing the changes to Figures 1 and 5. The changes are as follows:

In Figure 1, the upper view has been labeled "A" and the lower view has been labeled "B". Additionally, the reference character "10" has been deleted from the figure.

In Figure 5, the spring with an extension has been labeled with the reference character "2'", and the spring trigger without an internal spring has been labeled with the reference character "8'".

Attachments: Replacement Sheets (2)

Annotated Sheets Showing Changes (2)

REMARKS

Claims 1-11 constitute the pending claims in the present application. Claim 3 was withdrawn from consideration. Claims 1, 2, and 4-11 have been amended. Amendments presented in this reply are made to expedite prosecution of the claims in the present application and should not be viewed as acquiescence to the Examiner's positions. Applicants reserve the right to pursue claims of similar or differing scope in future applications.

No new subject matter has been added, and the amended claims should not necessitate an additional search. Support for the amended claims can be found in the application and claims as originally filed. Support for those amendments that cannot be found directly in the claims as filed can be found in the specification. For example, support for the amendments to the claims regarding how the release pin and ball bearings or slugs interact with the geometry of the trap can be found in the specification on pages 5 (see lines 7-13) and 6 (see lines 12-20).

Applicant notes with appreciation the Examiner's conclusion that claims 7 and 11 would be allowable if rewritten in independent form.

The issues raised by the Examiner in the Office Action are addressed below in the order they appear in the prior Action.

The Drawings Comply with 37 CFR 1.84(p) (4)

The Examiner objects to the drawings as failing to comply with 37 CFR 1.84(p)(4) because reference character "2" has been used to designate both a spring pin without an extension (Figures 1, 3, and 4) and a spring pin with an extension (Figure 5). Applicant has amended Figure 5 and labeled the spring with an extension with the reference character "2'" as suggested by the Examiner.

The Examiner objects to the drawings as failing to comply with 37 CFR 1.84(p)(4) because the reference character "8" has been used to designate both spring trigger with an internal spring (Figure 1) and spring trigger without an internal spring (Figure 5). Applicant has amended Figure 5 and labeled the spring trigger without an internal spring with the reference character "8".

The Examiner objects to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they include reference characters not mentioned in the description, namely "10" and "11" shown in Figure 1. Applicant has amended the description to indicate what corresponds to reference character "11". Applicant notes that this reference character was inadvertently omitted from the description but the specific item to which it refers was nonetheless clearly described in the text. Applicant has amended Figure 1 to no longer depict reference character "10".

The Examiner objects to the drawings as failing to comply with 37 CFR 1.84(h)(4) because Figure 1 has two views. Applicant has amended Figure 1 to recite each view as "A" and "B".

Applicant believes the foregoing amendments obviate the Examiner's rejections of the drawings under 37 CFR 1.84. Accordingly, reconsideration and withdrawal of the objections to the drawings is respectfully requested.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. The Examiner has requested that the limitations "internal spring activation element comprises an internal spring pin, an internal spring, and a release pin" and "internal release activation element comprises the release pin and one or more ball bearings or slugs" be corrected.

The Examiner objects to the disclosure because the name of some of the components in the detailed description of the embodiment do not match with those recited in the claims.

Applicant believes the amendments to the claims overcome these objections. For example, claims 1 and 9 as amended no longer recite the terms "internal spring activation element" and "internal release activation element". Accordingly, reconsideration and withdrawal of the objections to the specification is respectfully requested.

Claims

Applicant thanks the Examiner for pointing out informalities in the claims. Applicant has accordingly amended the claims as detailed below.

Claim 1 has been amended to recite "said" before "trap" in line 5.

Claim 7 has been rewritten in independent form, and therefore the term "further" no longer need be inserted.

Claim 9 has been amended to recite "said" before "trap" in line 5 and "the trigger" instead of "a trigger" in line 10. Claim 9 has also been amended to positively recite the string particularly attached to the trigger.

Claim 11 has been rewritten in independent form, and therefore the term "further" no longer need be inserted.

Accordingly, reconsideration and withdrawal of the objections to the claims is respectfully requested.

The Claims Comply with 35 U.S.C. §112

Rejection of Claims 2, 4, and 6 under 35 U.S.C. §112, second paragraph

Claims 2, 4, and 6 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant traverses this rejection to the extent it is maintained over the claims as amended.

The Examiner contends that the metes and bounds of claim 2 are unclear because it is not certain whether the internal release activation element comprises both the release pin and at least one ball bearing or just one ball bearing only. As discussed above, Applicant has amended claim 1 to no longer recite "internal release activation element".

The Examiner argues that the metes and bounds of claim 4 are unclear because it is not certain whether the internal release activation element comprises both the release pin and low frictional ball bearings or just low frictional ball bearings only. As discussed above, Applicant has amended claim 1 to no longer recite "internal release activation element". The Examiner additionally contends that it is unclear whether "low frictional ball bearings" are different ball bearings than those recited in claim 1. Applicant has amended claim 4 to clarify that the low frictional ball bearings of claim 4 refer to the ball bearings in claim 1. The Examiner further argues that the term "low" is a relative term, which renders the claim indefinite. Applicant has amended claim 4 to recite that the ball bearings have a coefficient of static friction that is less than 0.15 (see e.g., page 8 in the specification, lines 10-11).

The Examiner states that claim 6 is unclear because it is not certain what particular feature of the hanger causes locking of the internal spring activation element. Applicant has amended claim 6 to recite that the hanger pushes the internal spring pin down, thereby locking the internal spring pin, the internal spring, and the release pin (see e.g., page 5 in the specification, lines 2-9).

Accordingly, reconsideration and withdrawal of the §112 rejection is respectfully requested.

The Claims Comply with 35 U.S.C. §103

Rejection of Claims under 35 U.S.C. §103(a) (based on the Cannon, Jr. et al and Eakin patents)

Claims 1, 2, 4-6, and 8-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cannon, Jr. (U.S. Patent No. 2,928,693) in view of Eakin (U.S. Patent No. 3,009,729). Applicant traverses this rejection to the extent it is maintained over the claims as amended.

Claims 1 and 9 recite a low-force release mechanism comprising: a main structure; a trap; an internal spring pin, an internal spring, and a release pin to eliminate ordinal setup requirement; at least one trigger; and attachments by which a container is attached to said main structure and said trap, wherein when the release pin is pushed between one or more ball bearings or slugs in an internal geometry of the trap, the position of said trap is locked and held; a load force is distributed away from the trigger to permit application of a low force for release; and the release pin and the one or more ball bearings or slugs interact with the geometry of the trap, whereby the one or more ball bearings or slugs retract upon removal of the release pin such that the application of the low force on the trigger causes the internal spring pin, the internal spring, and the release pin to move a position of the container.

The Examiner's attention is drawn to MPEP § 706.02(j), which sets forth that a teaching or suggestion provided by the prior art reference (or references when combined) of all the claimed limitations is necessary to establish a *prima facie* case of obviousness. The following comments address this requirement of a rejection under 35 U.S.C. § 103(a).

Cannon, Jr. discloses a low-force release mechanism that comprises ball bearings (46 and 48) that trap and hold a load shackle (35). In the low-force release mechanism disclosed by Cannon, Jr., the ball bearings are pushed together in order to lock a load. This is in direct contrast to the pending claims, which recite that "when the release pin is pushed *between* one or more ball bearings or slugs in an internal geometry of the trap, *the*

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position of said trap is locked and held” and that “the release pin and the one or more ball bearings or slugs interact with the geometry of the trap, whereby the one or more ball bearings or slugs *retract* upon removal of the release pin”. [Emphasis added]. In the low-force release mechanism disclosed by Cannon, Jr., the ball bearings are pushed apart as opposed to retracted in order to release a load. In the subject invention of the pending claims, however, the load is released by retracting ball bearings or their equivalent. As such, Cannon, Jr. fails to disclose the interaction with the geometry of the trap that is recited in the pending claims.

Eakin discloses a container (7) attached to a main structure (19) and trap (9). Even if the skilled artisan at the time of the filing would have been motivated to combine the container attached to a main structure and trap of Eakin with the low-force release mechanism of Cannon, Jr., the use of this container in the low-force release mechanism of Cannon, Jr. would not meet all the elements of the subject claims. This is because the combined low-force release mechanism would *still require* retracted ball bearings to lock instead of release a load. Moreover, the container (7) in Eakin in fact operates as a load, which is integral to the functioning of the Eakin device. In Cannon, Jr.’s device, however, the load is not an integral part of the device because the low-force release mechanism disclosed by Cannon, Jr. can still lock *without* a load. Therefore, the skilled artisan would not be motivated to combine the container of Eakin with the low-force release mechanism of Cannon, Jr. because the Cannon, Jr. device can lock with or without a load.

Accordingly, neither Cannon, Jr., nor Eakin, either alone or in combination, teach or suggest all the elements of the pending claims.

Claims 2, 4-6, 8 and 10 are dependent on claim 1 or claim 9. As discussed above, claims 1 and 9 are not obvious in view of the cited art. Because a dependent claim incorporates every element of the independent claim from which it depends, the respective dependent claims of claim 1 and 9 are thus not unpatentable over Cannon, Jr. in view of Eakin.

For the foregoing reasons, Applicant believes that the references cited by the Examiner do not render the claimed subject matter *prima facie* obvious under 35 U.S.C § 103(a). Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Allowable Subject Matter

Claims 7 and 11 are objected to as depending upon a rejected base claim. Applicants have accordingly amended claims 7 and 11 to be independent. Applicants believe claims 7 and 11 as amended obviate these objections.

CONCLUSION

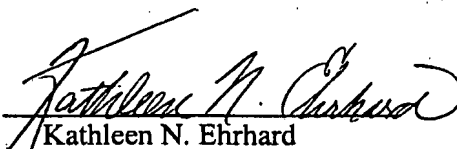
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the pending rejections. Applicant believes that the pending claims are in condition for allowance, and early and favorable reconsideration is respectfully solicited.

If there are any fees due in connection with the filing of this Response, please charge the fees to our **Deposit Account No. 18-1945** under Order No. WMFR-P01-001.

Respectfully submitted,

Date: May 9, 2005

Customer No: 28120
Ropes & Gray LLP
One International Place
Boston, MA 02110
Telephone: (617) 951-7000
Facsimile: (617) 951-7050

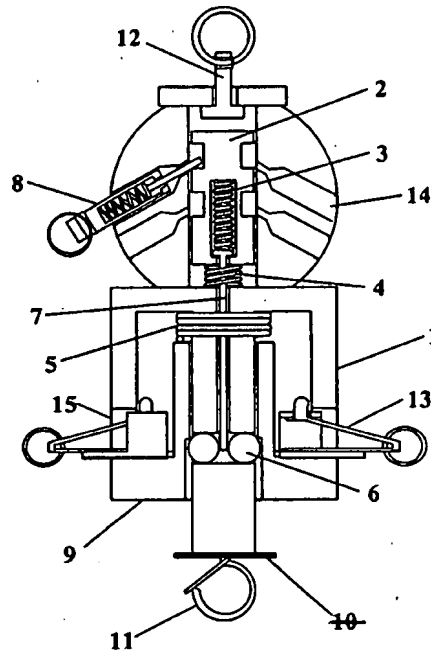
By: 
Kathleen N. Ehrhard
Reg. No. 55,144



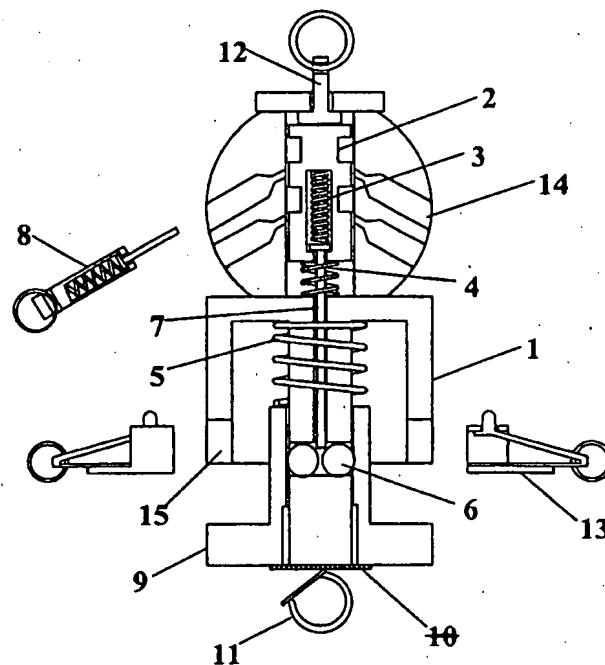
ANNOTATED MARKED-UP DRAWING

Figure 1

A



B





ANNOTATED MARKED-UP DRAWING

Figure 5

